

In the Claims:

Please amend claims 1, 4, 8 and 11 as follows:

1. (Currently Amended) A recording apparatus comprising:

a discoid record medium;

a head for writing or reading data to/from the discoid record medium;

a rotation shaft for rotating the discoid record medium; and

a control unit for controlling a position of the ~~head~~head, wherein

~~the discoid record medium having thereon radially recorded in advance~~
~~servo information defining the position of the head on the discoid record medium,~~

servo information for determination of the head position is stored circularly
in advance on the discoid record medium;

~~the control unit controlling the head based on position conversion~~
~~information for allowing the position of the head located by the servo information to~~
~~correspond to a position on concentric orbits which center is the rotation shaft, wherein~~

the control unit reads position conversion information, which is stored in
advance in a predetermined area on concentric orbits defined by the servo information on
the discoid record medium;

the control unit controls the head based on the position conversion
information so that the head follows a virtual track of which center is the rotation center

of the discoid record medium, the virtual track being different from the track determined by the servo information;

~~the position conversion information is stored in advance in a predetermined area on concentric orbits defined by the servo information on said discoid record medium;~~

the predetermined area on the concentric orbits defined by the servo information is an area from which the position conversion information can be read out even when data has been written along the concentric orbits of which center is the rotation ~~shaft;shaft,~~ and is an area on which a user cannot overwrite any data; and

at a start-up of the recording apparatus~~apparatus,~~ ~~causes the control unit to read~~reads out the position conversion information and ~~control~~controls the head based on the read out position conversion information.

2. (Original) The recording apparatus according to claim 1, wherein the recording apparatus further comprises a memory unit in which the position conversion information is stored, and wherein

the control unit determines whether or not a first position conversion information stored in the memory unit can be read out at the start-up and, when the first position conversion information can be read out, controls the head based on the read out first position conversion information and, when the first position conversion information can not be read out, first, reads out a second position conversion information stored in the

predetermined area on the concentric orbits defined by the servo information by controlling the head along the concentric orbits defined by the servo information, then, selects a control such that the head is controlled based on the read out second position conversion information.

3. (Cancelled)

4. (Currently Amended) The recording apparatus according to claim 32, wherein the concentric orbits defined by the servo information are further circumferentially divided into a plurality of sectors, and wherein the predetermined area of the orbits, in which the second position conversion information is stored, is a part of the plurality of sectors.

5. (Original) The recording apparatus according to claim 1, wherein the recording apparatus further has a memory unit in which the position conversion information is stored, wherein

the control unit stores the position conversion information in a predetermined area on the concentric orbits which center is the rotation shaft, and wherein

the control unit determines whether or not a first position conversion information stored in the memory unit can be read out at the start-up and, when the first

position conversion information can be read out, reads out a second position conversion information stored in the predetermined area on the concentric orbits which center is the rotation shaft by controlling the head based on the read out first position conversion information, compares the first position conversion information and the second position conversion information with each other, and when they do not coincide with each other as a result of the comparison, first, switches a control such that the head is controlled along the concentric orbits defined by the servo information and reads out a third position conversion information stored in the predetermined area on the concentric orbits defined by the servo information and, then, switches again the control such that the head is controlled based on the read out third position conversion information.

6. (Original) The recording apparatus according to claim 5, wherein the predetermined area on the concentric orbits defined by the servo information in which the third position conversion information is stored is an area on the concentric orbits determined by the servo information, from which data can be read out even when data have been written along the concentric orbits which center is the rotation shaft.

7. (Original) The recording apparatus according to claim 6, wherein the concentric orbits defined by the servo information are further circumferentially divided into a plurality of sectors, and wherein

the predetermined area of the concentric orbits defined by the servo information, in which the third position conversion information is stored, is a part of the plurality of sectors.

8. (Currently Amended) A method of starting up a recording apparatus having a discoid record medium on which is recorded servo information locating a position of a head, wherein

~~position conversion information for allowing the position located by the servo information to correspond to a position on concentric orbits which center is a rotation shaft for causing the discoid record medium to rotate,~~information, based on which the head is controlled so that the head follows a virtual track of which center is the rotation center of the discoid record medium, is stored in advance in a predetermined area on concentric orbits defined by the servo information on said discoid record medium, ~~wherein~~the virtual track being different from the track determined by the servo
information;

the predetermined area on the concentric orbits defined by the servo information is an area from which the position conversion information can be read out even when data has been written along the concentric orbits of which center is the rotation ~~shaft;~~shaft, and is an area on which a user cannot overwrite any data;

at a start-up of the recording apparatus, the position conversion information is read out; and

the head is controlled based on the read out position conversion information.

9. (Original) The method of starting up a recording apparatus according to claim 8, wherein

the recording apparatus further has a memory unit in which the position conversion information is stored, wherein

whether or not a first position conversion information stored in the memory unit can be read out is determined, wherein

when the first position conversion information can be read out, the head is controlled based on the read out first position conversion information, and wherein

when the first position conversion information can not be read out, first, a second position conversion information stored in the predetermined area on the concentric orbits defined by the servo information is read out by controlling the head along the concentric orbits defined by the servo information, then, a control is switched such that the head is controlled based on the read out second position conversion information.

10. (Original) The method of starting up a recording apparatus according to claim 8, wherein

the recording apparatus further has a memory unit in which the position conversion information is stored, wherein

the position conversion information is further stored in advance in a predetermined area on the concentric orbits which center is the rotation shaft, wherein

whether or not a first position conversion information stored in the memory unit can be read out is determined at the start-up of the recording apparatus, wherein

when the first position conversion information can be read out, the head is controlled based on the read out first position conversion information, wherein

a second position conversion information stored in

the predetermined area on the concentric orbits which center is the rotation shaft is read out, wherein

the first position conversion information and the second position conversion information is compared with each other, wherein

when they do not coincide with each other as a result of the comparison, first, a third position conversion information stored in the predetermined area on the concentric orbits defined by the servo information is read out by switching a control such that the head is controlled along the concentric orbits defined by the servo information, and wherein

the control is switched again such that the head is controlled based on the read out third position conversion information.

11. (Currently Amended) A recording apparatus comprising:

a discoid record medium;

a head for writing or reading data to/from the discoid record medium;

a rotation shaft for rotating the discoid record medium; and

a control unit for controlling a position of the head;head, wherein

~~the discoid record medium having thereon radially recorded in advance
servo information defining the position of the head on the discoid record medium,~~

servo information for determination of the head position is stored circularly
in advance on the discoid record medium;

~~the control unit controlling the head based on position conversion
information for allowing the position of the head located by the servo information to
correspond to a position on concentric orbits which center is the rotation shaft,
wherein~~reads a plurality of pieces of position conversion information, which is stored in
advance in a predetermined area on concentric orbits defined by the servo information on
the discoid record medium;

the control unit controls the head based on the position conversion
information so that the head follows a virtual track of which center is the rotation center
of the discoid record medium, the virtual track being different from the track determined
by the servo information;

~~a plurality of pieces of the position conversion information is stored in advance in a predetermined area on concentric orbits defined by the servo information on said discoid record medium;~~

the predetermined area on the concentric orbits defined by the servo information being an area from which at least one of the pieces of the position conversion information can be read out even when data has been written along the concentric orbits of which the center is the rotation ~~shaft~~shaft, and being an area on which a user cannot overwrite any data; and

at a start-up of the recording apparatus~~apparatus~~, causes the control unit to read~~reads~~ out the position conversion information and ~~control~~controls the head based on the read out position conversion information.